Additional Sediment Sampling Location Recommendations <u>Revised: May 21, 2013</u>

Row	River Mile	Existing Sample Reference Location	Additional Sample Recommendations	Status	EPA/Partner Agency Tentative Recommendation (after discussion during 5/9/2013 webinar)	CPG Proposal – 13 June 2013
A	7.2- 7.3		CPG Proposal			7 locations to support CSM (characterize lateral variation)
В	8.4		CPG Proposal			1 location to support CSM (location with limited historical deposition)
1	8.42	12A-0468	West bank: 2 more to the south and 1 to the north of this location.	EPA requested 3, CPG proposed 3	Take 2 samples on west bank: remove the one closest to 12A-0468, move the southern one to ~RM 8.4, and move the northern one further north (between current location and SSP location).	South - Probing indicates <0.5' penetration, cobble, gravel - No Sample North - 1 @ RM 8.55, between utilities

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2	8.75		East bank: 1 location, between LPRT09E and LPRT09G.	Along with requests made in Row 5, EPA requested 5 corings and CPG proposed 1.	Place 1 in south end of mudflat, one in middle, and one near the north end of the mudflat.	South -1 @ RM 8.7 (south of utility Middle – 1@RM 8.9 North – LRC-057 provides coverage – No Sample
3	8.81	LPRT09F	West bank: 3 additional samples • 1 more to the south, between this and 12A-0470 • 2 more to the north, between this and 08A-056	CPG agreed to take the three samples proposed.	Okay – probing will be used to guide placement.	South 1 RM 8.7 (south of utility) North - 1 RM 8.85, 1 RM 8.95 (placed based on probing)
4	8.90	12A-0475	West bank: 1 more to the north and 1 more to the south, to bound.	EPA requested 2, CPG proposed 1	The 1 proposed is acceptable. Consider moving it further south (to the tip of the mudflat) if probing indicates this makes sense.	1@RM 9.2 (moved to tip of mudflat)

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5	8.90		East bank: 1 more north of LPRT09G (at end of Hendel Avenue), one at end of Sunset Avenue, one south of LPRT10B, and one between Arlington Boulevard and Eagle Street (4 total).	See notes in Row 2	See notes in Row 2	
С	9.25		CPG Proposal			2 locations to support CSM (location with limited historical deposition)
D	9.3		CPG Proposal			1 location to support CSM (location with recent erosion)
E	9.4		CPG Proposal			1 location to support CSM (location with recent erosion)

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6	9.10 to 9.50		East bank: 2 locations, adjacent to park, between SSP-474 and the intersection of Baltimore Avenue and River Road.	EPA requested and CPG proposed 2	Generally okay, may want to adjust locations	Probing indicates <0.5' penetration, gravel north of SSP-474– No samples
7	9.60	12A-0476	East bank: 3 to 4 additional samples at and near mouth of Unnamed Creek.	EPA requested 4, CPG proposed none	Use probing and/or visual inspection to determine whether access for coring is possible here. Sample 1 or 2 additional locations, as possible, to define depth of contamination.	Need clarification – utilities, existing samples (LRC- 060) – sample @RM 9.5 (<1' sediment)? West bank probed – add a sample?
8	10.10	12A-0478	West bank: 2 locations to the south and 1 to the north to bound contamination here at depth.	EPA requested 3, CPG proposed 2	Okay, but move northern location further north (half way between current location and RM 10.5 marker). In addition, the sample you propose just south of the RM 10.0 mile marker should be placed in the silt area (closer to shore).	North – 1@RM 10.45 (north of utility) South – 1@RM 10.15 Sample @RM 10 – location to achieve specific CPG DUO. Add an additional sample along the shore?

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F	10		CPG Proposal			1 location to support CSM (location with recent erosion)
G	10.05		CPG Proposal			6 locations to support CSM (lateral and spatial variation).
9	10.0 to 10.5		East bank: 2 to 3 more locations along this bank.	EPA requested 3, CPG proposed 2	Okay, but move the southern one farther south (to where the one is indicated but not accepted) and the northern one farther north (half way between current one and RM 10.5 marker).	South – 1@ RM 10 and 1@ RM10.1 (based on probing) North – 1@ RM 10.3 (utility)
10	10.31	12A-0480	West bank: 1 more to the north	EPA requested, and CPG agreed, to take 1.	See Row 8, this can be the same as the northern one described there.	
Н	10.3		CPG Proposal			1 location to support CSM (location with limited historic deposition)

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11	10.5 to 11.2		West bank: approximately 4 locations across from RM 10.9 removal area, adjacent to Nutley side of river.	EPA requested 4, CPG proposed 2	Revise based on probing, consider taking 2 grab samples at 2 southern locations.	1@ RM 10.9 1@ RM 11 1@ RM 11.2 (based on probing) South of RM 10.9 – probing indicates sand/gravel/rocks
12	~11.2	3 rd River	West bank: approximately 5 additional samples, from 0 to 6" and 6 to 18" only, at and near mouth of river.	EPA requested 5, CPG proposed 2	Use probing to confirm locations and numbers. Additional locations may be possible. Probing into the mouth of the river should be conducted.	4 locations? Mouth of river to be probed during SSP2 survey (OneCall response not received in time)
13	11.24	12A-0481	East bank: 5 more to north, between this and 08A-070	EPA requested 4, CPG proposed 3	Use probing to determine if 3 or 4 makes sense.	1@ RM 11.25 (overlap w/line 12) 1@ RM11.3 Probing indicates <0.5' penetration, gravel along east bank.
14	11.51	08A-0069	West bank: 1 more to north and 1 more to south	EPA requested 2, CPG proposed 1	In addition to the location to the south of 08A-0069, place a coring to the north, if possible, based on coring.	South – 1 @ RM 11.45 North – 1@ RM 11.65 (based on probing and utilities)

Row	River Mile	Existing Sample	Additional Sample Recommendations	Status	EPA/Partner Agency Tentative	CPG Proposal – 13 June 2013
		Reference Location			Recommendation (after discussion during 5/9/2013 webinar)	
15	11.5 to 13.5		Center channel: equidistant corings in this area to further refine the nature and extent of contamination in this part of the river.	EPA requested ~4, CPG proposed none	Conduct a transect probing program from RM 11.5 to 13.5 to define the main river channel and depth of sediment moving upstream. Based on this information, discuss placement of additional borings in this area to delineate the nature and extent of contamination.	Utilities. Probing indicates predominantly sand/gravel bed. Existing cores within nav channel: 12A-0482 @ RM 11.8 08A-071 @ RM 12 12A-0484 @ RM 12.3 08A-075 @ RM 12.6 12A-0485 @ RM 12.7 08A-076 @ RM 12.8 08A-078 @ RM 12.8

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16	11.75	LPRT12E	East bank: 1 more to south and approximately 5 more to north	EPA requested 6, CPG proposed 2	Conduct probing in this area to confirm whether corings are feasible. If they are not, collect grab samples to close the data gap. Locations can be discussed after probing is complete.	1 @ RM 11.7 1 @ RM 11.8 Probing indicates sand and gravel, limited penetration to the north.
17	12.0 to 12.3		East bank: 4 to 6 additional locations along this shore, from south of 081-072 to just south of 12A-0484.	EPA requested 5, CPG proposed none	Conduct probing in this area to confirm whether corings are feasible. If they are not, collect grab samples to close the data gap. Locations can be discussed after probing is complete.	1 @ RM 12.3 Probing indicates gravel, penetration <0.5'
18	12.30	08A-073	West bank: 1 more to north and 1 more to south, to bound.	EPA requested 2, CPG proposed none	Conduct probing in this area to determine whether additional corings are feasible and/or warranted.	North - 1 @ RM 12.45 South - 1 @ RM 12.15

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19	12.25 to 12.75		East bank: sample 4 locations, 2 on either side of 08A-077.	EPA requested 4, CPG proposed 2	Tentatively sample 3 locations here – move the southern one further south and the northern one farther north (to the RM 13 mile marker).	1 @ RM 12.3 (overlap w/Line 17) 1 @ RM 12.7 (based on probing) Probing indicates limited, patchy sediment
20	12.80	08A-077	East bank: 1 more to north and 1 more to south, to bound	CPG agreed to sample these locations. Revised request includes one more location on either side of 08A-077 (4 total).	Repeat of request in previous row.	
21	13.0		West bank: 1 more to south and 2 to 3 more to north of location 12A-0486.	EPA requested 3, CPG proposed none	Conduct probing in this area to confirm whether corings are feasible. If they are not, collect grab samples to close the data gap. Locations can be discussed after probing is complete.	1 @ RM 12.95
22	13.8		East bank: 2 to 3 locations south of Gregory Avenue bridge.	EPA requested 3, CPG proposed 1	Okay	1 @ RM 13.75

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I	14.5		CPG Proposal			2 locations to fill spatial gap, support surface mapping
23	17.3		West bank: additional sample location on this bank.	EPA requested 1, CPG proposed none	Verify conditions, take a coring or grab if possible.	Visual verification of substrate during SSP2 survey, no sample is anticipated.